

RECLAMATION

Managing Water in the West

One-Year Acquisition/Transfer of 8,000 Acre Feet of San Joaquin Exchange Contractors Water Authority Water to Meet South of Delta Refuges Incremental Level 4 Water Supply Needs for Water Year 2010

San Joaquin Valley, California

Final Environmental Assessment



Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitments to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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1.0 Purpose and Need

1.1 Introduction

This Environmental Assessment (EA) examines the environmental effects of a one-year acquisition and transfer of 8,000 acre-feet (AF) of water from the San Joaquin River Exchange Contractors Water Authority (Exchange Contractors) (Figure 1) to San Joaquin Valley South of Delta Refuges (Refuges) as part of the Department of the Interior's (Interior) Water Acquisition Program (WAP) under the Central Valley Project Improvement Act (CVPIA) Section 3406(b)(3) and Section 3406(d)(2). The proposed acquisition/transfer is being undertaken pursuant to, and would be in full compliance with, Section 3406(b)(3) and Section 3406(d)(2) of CVPIA (106 Stat. 4706), which authorizes new water supply contracts for fish and wildlife purposes. Along with providing water for critical wetlands habitat within the Refuges, the water would also serve to help dilute groundwater being pumped in Grassland Water District to ensure selenium and Total Dissolved Salt levels applied to and drained from the refuges are of acceptable water quality.

Section 3405(a) of the CVPIA authorizes all individuals or districts that receive Central Valley Project (CVP or Project) water under water service, repayment, water right settlement or exchange contracts to transfer all or a portion of the CVP water they receive under contract to another California water user for any purpose recognized as beneficial under the applicable law. CVP contract provisions require Bureau of Reclamation (Reclamation) contracting officer approval of transfers authorized under CVPIA.

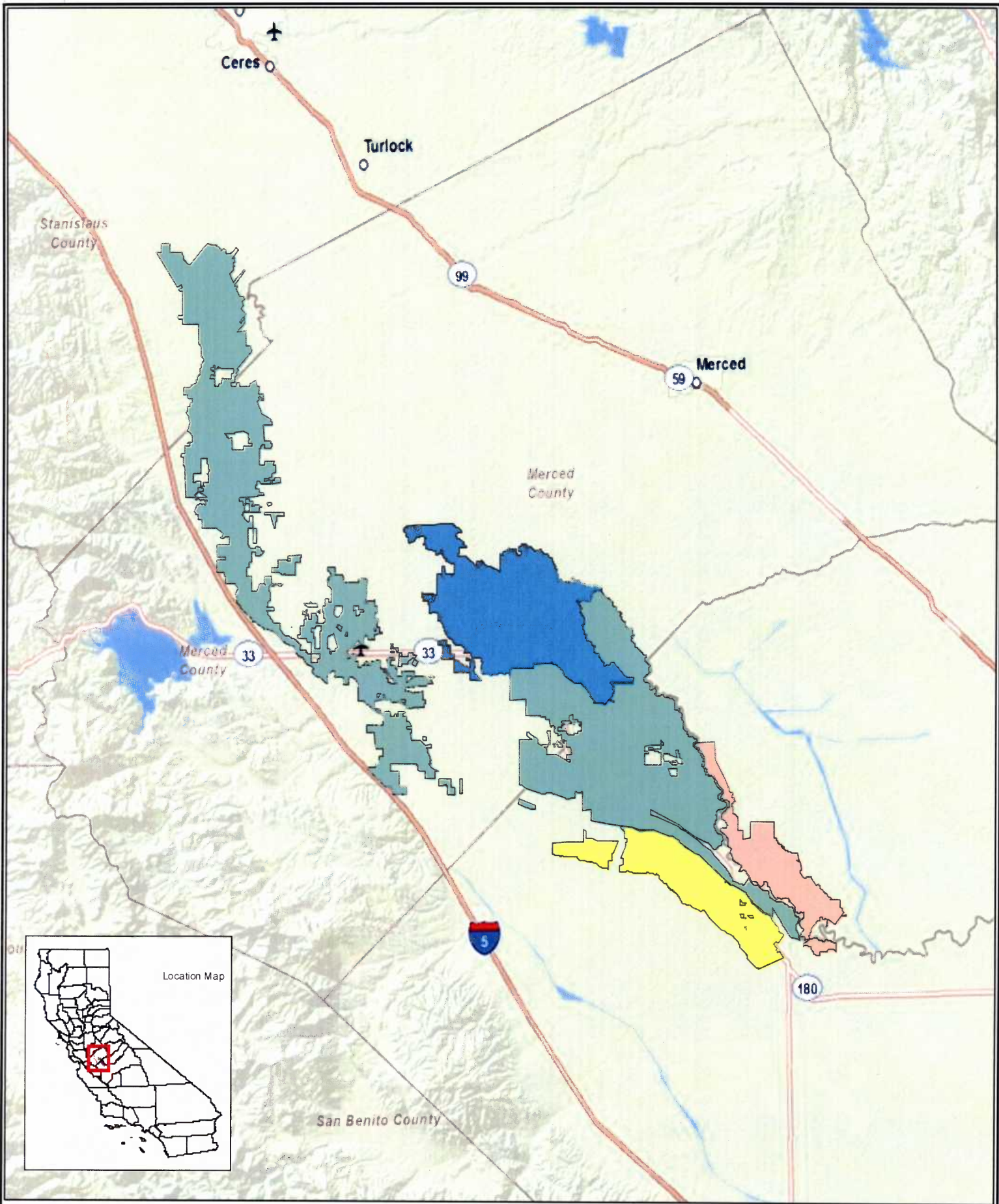
Reclamation is the Federal lead agency for preparation of this EA pursuant to the National Environmental Policy Act (NEPA). As part of the Federal action, Reclamation would need to review and approve the proposed transfer to ensure that the transfer meets applicable Federal and State laws, including policies and procedures governing transfer of CVP surface supplies.

Refuges receiving the Incremental Level 4 water are located in the San Joaquin Valley south of the Delta, California (Figure 2).

1.2 Purpose and Need

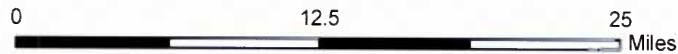
The purpose of the Proposed Action is for Reclamation to provide 8,000 AF of Exchange Contractor water supplies to South of Delta Refuges. The 8,000 AF of water would be acquired by the Refuges consistent with the Incremental Level 4 water quantities for wildlife habitat development outlined in the CVPIA and WAP. Refuges are eager to identify additional supplies to annually maintain wetland habitats. The proposed water transfer is an opportunity to augment limited Refuge supplies. Transfer of water subject to Reclamation contract requires Reclamation's approval according to CVPIA and State Law.

This EA: (1) describes the existing environmental resources in the project area; (2) evaluates the effects of the alternatives (including the Proposed Action) on the resources; and, (3) proposes measures to avoid, minimize, or mitigate any adverse effects. This EA is in compliance with NEPA and Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508). Reclamation has also prepared a Finding of No Significant Impact (FONSI) which explains why the Proposed Action will not have significant effect on the human environment.



- CENTRAL CALIFORNIA I.D.
- COLUMBIA CANAL COMPANY
- FIREBAUGH CANAL W.D.
- SAN LUIS CANAL CO.

San Joaquin River Exchange Contractors Water Authority



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Figure 1

Date: August 19, 2010
File Name: P:\mpgis_erobins\Arcmap\SHattleberg\SURExchangeContractors.mxd



San Joaquin Valley South of Delta Refuges

RECLAMATION
Managing Water in the West

Figure 2

2.0 Alternatives

2.1 No Action Alternative

Under the No Action alternative, water deliveries to the Refuges would consist of Level 2 water supplies provided from the CVP and the purchase of Incremental Level 4 supplies from willing sellers. Incremental Level 4 supplies for Refuges have historically come from a variety of willing sellers consisting of CVP contractors or State Water Project (SWP) contractors. As a result, the No Action Alternative is not likely to affect any appreciable change in the Refuges' water management operations or cause any measurable effects. Absent this water purchase, water available for acquisition from the Exchange Contractors would likely be used by the Exchange Contractors. Under the No Action Alternative, no changes would occur to the operations or water supply for Exchange Contractors or the Refuges.

2.2 Proposed Action Alternative

The Proposed Action is for Reclamation to enter into a one-year agreement with Exchange Contractors and approve a one-year CVP water transfer of 8,000 (AF) to help meet Incremental Level 4 water supply needs for the Refuges during the last few months of calendar year 2010 (September 10, 2010 – December 31, 2010). Reclamation would purchase 8,000 AF of Exchange Contractor's CVP water and transfer and convey the water to the Refuges in the San Joaquin Valley participating in the WAP. This water was made available for transfer either by tail water recovery, conservation, cropland idling/fallowing, groundwater substitution or by a combination of two or more of these methods.

Transfer Period. All elements of the Proposed Action would take place prior to December 31, 2010. Total time to implement the Proposed Action is estimated to be between 60 and 110 days.

Conveyance Details. Depending on available capacity, Exchange Contractor water acquired by Reclamation would be scheduled for delivery to the various Refuges via multiple existing routes primarily off of the Delta Mendota Canal. The transfer water would be conveyed, using CVP facilities, to Refuges in accordance with the conveyance agreements and procedures set forth within the WAP.

The project area encompasses the area where conveyance to the recipient Refuges would occur and the area where distribution of the water would occur onto the Refuges.

3.0 Affected Environment & Environmental Consequences

3.1 Resources Considered

Evaluation of the Proposed Action indicates the following resources could be affected by the project:

- Water Resources
- Land Use
- Biological Resources
- Cultural Resources
- Indian Trust Assets
- Environmental Justice
- Climate Change

3.2 Resources Not Analyzed in Detail

Evaluation of the Proposed Action indicates that there would be little to no indirect, direct or cumulative effects on several resources. The resources include:

- Air Quality
- Geology and Soils
- Hazards and Hazardous Materials
- Noise
- Mineral Resources
- Traffic and Transportation
- Recreation
- Agricultural Resources
- Public Services
- Utilities
- Socioeconomics

As a result, these resources are not discussed further in this EA.

3.3 Water Resources

3.3.1 Affected Environment

The project occurs within the San Joaquin River Basin Hydrologic Unit. A large network of surface water conveyance facilities exists within the project area to provide water to private and public lands. Some of the primary surface water resources in the project area include the Delta Mendota Canal, the San Joaquin River, and Salt and Mud sloughs.

The groundwater system in the San Joaquin Valley provides a supply of irrigation water when surface deliveries to the area are reduced due to hydrologic conditions. Even during the recent

drought, the groundwater basin supported substantially increased groundwater usage. Groundwater recharge to the project area occurs from several sources: subsurface lateral flow, creeks, surface irrigation, and precipitation.

A comprehensive discussion of the project area hydrology, groundwater resources, and the Exchange Contractor service area occurs in the following environmental document: U.S. Department of the Interior, Bureau of Reclamation (USBR) and San Joaquin River Exchange Contractors Water Authority (Exchange) 2004, *Final Environmental Impact Statement/Environmental Impact Report Water Transfer Program for the San Joaquin River Exchange Contractors Water Authority 2005-2014*. Pages 4-1 through 4-5 and Pages 5-1 through 5-17.

3.3.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, no purchase of Incremental Level 4 water for Refuges would occur. Water deliveries would be based on Level 2 needs plus additional water where firm supplies exceed Level 2 supply and involve water from a variety of sources (USBR 1998). The *San Joaquin River Water Acquisition, 1998, Final EA/IS* explains that providing full Incremental Level 4 supplies to the refuges would have a minor but generally positive effect on San Joaquin River water quality. Providing Incremental Level 4 water to Refuges can then be inferred to likewise have a minor but generally positive effect on water quality.

Under the No Action Alternative, no water would be developed for transfer and no transfer of water would occur from the Exchange Contractors to either Reclamation or any of the other potential CVP water users. A more comprehensive discussion of elements of the no action alternative as it relates to water resources occurs in the following environmental document: U.S. Department of the Interior, Bureau of Reclamation (USBR) and San Joaquin River Exchange Contractors Water Authority (Exchange) 2004, *Final Environmental Impact Statement/Environmental Impact Report Water Transfer Program for the San Joaquin River Exchange Contractors Water Authority 2005-2014*. Pages 4-13 through 4-15 and Pages 5-18 through 5-19.

Proposed Action Alternative

The Proposed Action would deliver the Project water to Refuge wetland areas on a schedule that meets refuge water needs and would be of improved quality as compared to the No Action Alternative. Therefore, the Proposed Action provides a beneficial effect to wetland habitat areas located within the Refuges by providing a water supply of suitable quality on a delivery schedule that meets their needs.

The Proposed Action would result in retention of 8,000 AF of tailwater within Exchange Contractors boundaries. There would be no impacts to Project contractors and State Water Contractors.

The Proposed Action would not impact San Joaquin River flows. There would be a negligible water quality benefit to the San Joaquin River basin due to improved fall water quality applied to the Refuges. Due to the short-term period of this transfer and the amount of water proposed for transfer, little to no indirect or direct surface water or groundwater effects would occur.

Cumulative Effects

The Proposed Action is for Reclamation to provide Incremental Level 4 water to San Joaquin valley refuges participating in the WAP. Implementation of the Proposed Action would result in a negligible decrease to the amount of draft of groundwater in the vicinity of the Refuges and would result in a temporary benefit to local water quality. The Proposed Action would supply water for uses such as wetlands, waterfowl and wildlife purposes. The Proposed Action would have no significantly cumulative impacts on surface or groundwater.

3.4 Land Use

3.4.1 Affected Environment

Agricultural Land Use

Agricultural land uses in the Exchange Contractors service area (from which water would be developed for transfer) include cotton, melons, alfalfa hay, grains, vegetables, field crops, orchards, and vineyards. Farmers in the Exchange Contractors service area produce crops with a farm value of over \$300,000,000 annually. Within the Exchange Contractors service area, the largest acreage crops are cotton, alfalfa hay and seed, miscellaneous field crops, grains, vegetables, and permanent crops. Cotton is the largest single crop grown in the area, accounting for 28.7 percent of total acreage and 29.6 percent of total production value. Alfalfa, the second largest crop in the area, is grown on 59,865 acres and is used extensively by the local dairy industry. (USBR, Exchange, December 2004)

Wetland Habitat

The wetland habitat areas that would potentially receive transfer water are located in Merced, Fresno and Kern counties. Seasonal wetland habitat at refuges and at private hunting clubs is integral to the maintenance of waterfowl populations along the Pacific Flyway. Wildlife Refuges and wildlife areas include: the San Luis, Merced and Kern National Wildlife Refuges (NWRs); the Grasslands, Los Banos and Volta Wildlife Management Areas (WMA)s; Grassland Resource Conservation District; and Mendota Wildlife Area. Figure 2 identifies the wildlife refuges and management areas in the project area. Existing land uses in these wetland habitat areas are managed to provide wildlife habitat, hunting, and bird-watching opportunities.

3.4.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, land use within the San Joaquin River Exchange Contractors Water Authority boundaries and with the South of Delta refuges/wildlife areas would not change.

Proposed Action Alternative

The Proposed Action is for a short-term one year temporary acquisition/ transfer of 8,000 AF of Incremental Level 4 water to San Joaquin valley refuges. No land use changes would occur as a result of the proposed action.

Cumulative Effects

The Proposed Action would have no significantly cumulative impacts on land use.

3.5 Biological Resources

3.5.1 Affected Environment

Sensitive biological resources in the project area include wetlands, special-status species, and nonwetland aquatic habitats. These biological resources are defined as follows:

- Wetlands – habitats that are inundated or saturated frequently and for sufficient duration to support specialized hydrophytic plants that tolerate these conditions (hydrophytic plants)
- Special-status species – species that are formally listed, proposed for listing, or candidates for listing under the Federal or California Endangered Species Acts; designated “species of concern” identified by the Service or the DFG; and special-status plants identified in the California Native Plant Society’s 2001 Inventory (CNPS 2001)
- Nonwetland aquatic habitats – habitats that lack wetland vegetation but are characterized by seasonal or perennial inundation

A comprehensive discussion of the biological resources found in the project area occurs in the following environmental document: U.S. Department of the Interior, Bureau of Reclamation (USBR) and San Joaquin River Exchange Contractors Water Authority (Exchange) 2004, *Final Environmental Impact Statement/Environmental Impact Report Water Transfer Program for the San Joaquin River Exchange Contractors Water Authority 2005-2014*. Pages.6-1 through 6-13.

For complete U.S. Fish and Wildlife Service lists of Federal Endangered and Threatened Species that occur in or may be affected by projects in the Merced, Fresno and Kern County, please see Appendix A.

3.5.2 Environmental Consequences

No Action Alternative

No impacts to biological resources are associated with this No Action Alternative.

Proposed Action Alternative

The entitlement of Incremental Level 4 water supplies under the Proposed Action would result in each Refuge temporarily receiving more water than they would have received under the No Action Alternative. The additional Incremental Level 4 water supplies would be delivered

during the months of September through December. The Incremental Level 4 water would allow for improved management of the wetland habitat areas to benefit migratory and breeding waterfowl and other water birds. The Incremental Level 4 water would be used for:

- fall flooding of seasonal marshes to allow for increased wildlife use;
- maintenance of additional acreage of late summer water and maintenance of permanent ponds for breeding wildlife;
- an increase in the amount and quality of watergrass, an important waterfowl food item;
- an increase in the “flow through” of water levels to decrease the potential for disease outbreaks;
- maintenance of water depths to provide optimal foraging conditions for water birds; and
- control of undesirable vegetation.

These management changes would improve water quality and habitat value for migrating water birds, which could also improve diversity. Until long-term water supplies become available and are acquired by Reclamation, this Incremental Level 4 water is considered temporary and the benefits short-term. Therefore, the Proposed Action would result in beneficial impacts on vegetation and wildlife resources.

Cumulative Effects

The Proposed Action is to provide an 8,000 AF water supply to the South of Delta Refuges to benefit wetland and wildlife management activities. The acquisition/transfer of Incremental Level 4 water is a short-term project. There would be no loss of vegetation or habitat. There would be a short term benefit to vegetation and wildlife habitat in the project area. The Proposed Action would have no significantly cumulative impacts on wildlife and vegetation.

3.6 Cultural Resources

3.6.1 Affected Environment

A cultural resource is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Those resources that are on, or eligible for inclusion on, the NRHP are referred to as historic properties.

The Proposed Action does not have the potential to effect historic properties because the land use would remain unchanged. No construction or other land use changes would be caused by the proposed provision of water to Refuges.

3.6.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, there would not be an undertaking as defined by Section 301 of the NHPA. The condition of cultural resources would be the same as under the existing conditions. No impacts to cultural resources are associated with this No Action Alternative.

Proposed Action Alternative

The Proposed Action would deliver Project water to Refuge wetland areas on a schedule that meets refuge water needs. Water would be conveyed through existing facilities and would be used for wildlife refuge or wetland habitat water management. No ground disturbing activities, including excavation or construction are required to convey the water. This administrative action is not the type of activity that has the potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). As a result of this no potential to affect historic properties determination, no cultural resources would be impacted as a result of the Proposed Action.

Cumulative Effects

The Proposed Action has no potential to effect historic properties and, therefore, would not contribute to cumulative impacts to cultural resources.

3.7 Indian Trust Assets

3.7.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in property held in trust by the U.S. for federally-recognized Indian tribes or individual Indians. An Indian trust has three components: (1) the trustee, (2) the beneficiary, and (3) the trust asset. ITAs can include land, minerals, federally-reserved hunting and fishing rights, federally-reserved water rights, and in-stream flows associated with trust land. Beneficiaries of the Indian trust relationship are federally-recognized Indian tribes with trust land; the U.S. is the trustee. By definition, ITAs cannot be sold, leased, or otherwise encumbered without approval of the U.S. The characterization and application of the U.S. trust relationship have been defined by case law that interprets Congressional acts, executive orders, and historic treaty provisions.

Consistent with President William J. Clinton's 1994 memorandum, "Government-to-Government Relations with Native American Tribal Governments," Bureau of Reclamation (Reclamation) assesses the effect of its programs on tribal trust resources and federally-recognized tribal governments. Reclamation is tasked to actively engage federally-recognized tribal governments and consult with such tribes on government-to-government level (Federal Register, Vol. 59, No. 85, May 4, 1994, pages 22951 -22952) when its actions affect ITAs. The U.S. Department of the Interior (DOI) Departmental Manual Part 512.2 ascribes the responsibility for ensuring protection of ITAs to the heads of bureaus and offices (DOI 1995). It is the general policy of the DOI to perform its activities and programs in such a way as to protect ITAs and avoid adverse effects whenever possible. The proposed action would be implemented to ensure compliance with this policy. In addition, Reclamation would comply with procedures contained in Departmental Manual Part 512.2, guidelines, which protect ITAs. DOI is required to "protect and preserve Indian trust assets from loss, damage, unlawful alienation, waste, and

depletion” (DOI 2000). Reclamation is responsible for assessing whether the action of acquiring and transferring Incremental Level 4 water for the purposes of 2010 refuge water supply would have the potential to affect ITAs. Reclamation will comply with procedures contained in Departmental Manual Part 512.2, guidelines, which protect ITAs.

The proposed action does not have a potential to affect Indian Trust Assets.

3.7.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, there are no impacts to ITAs since there would be no change in operations and no ground disturbance. Conditions related to ITAs would remain the same as existing conditions.

Proposed Action Alternative

The Proposed Action does not affect any ITAs. The nearest ITA is the Santa Rosa Rancheria, approximately 20 miles from the Proposed Action area and it would not be affected by the Proposed Action.

Cumulative Effects

The Proposed Action would not result in adverse impacts to ITAs and, therefore, would not contribute to cumulative impacts to ITAs.

3.8 Environmental Justice

3.8.1 Affected Environment

Executive Order 12898 requires each Federal agency to achieve environmental justice as part of its mission, by identifying and addressing disproportionately high adverse human health or environmental effects, including social and economic effects, of its programs and activities on minority populations and low-income populations of the United States.

3.8.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, there are no impacts to minority or low-income populations since there would be no change in operations and no ground disturbance. Conditions related to environmental justice would remain the same as existing conditions.

Proposed Action Alternative

Due to the nature of the Proposed Action (i.e., land use and agriculture would remain unchanged), there would be no effects to minority or low-income populations.

Cumulative Effects

As the Proposed Action does not have the potential to cause adverse impacts to economically disadvantaged or minority populations, it would not result in cumulative effects to environmental justice.

3.9 Global Climate Change

3.9.1 Affected Environment

The United Nations Intergovernmental Panel on Climate Change predicts that changes in the earth's climate will continue through the 21st century and that the rate of change may increase significantly in the future because of human activity. Many researchers studying California's climate believe that changes in the earth's climate have already affected California and will continue to do so in the future. Climate change may seriously affect the State's water resources. Temperature increases could affect water demand and aquatic ecosystems. Changes in the timing and amount of precipitation and runoff could occur.

Climate change is identified in the 2005 update of the California Water Plan (Bulletin 160-05) as a key consideration in planning for the State's future water management. The 2005 Water Plan update qualitatively describes the effects that climate change may have on the State's water supply. It also describes efforts that should be taken to quantitatively evaluate climate change effects for the next Water Plan update.

3.9.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, there are no impacts to climate since there would be no change in operations and no ground disturbance. Conditions related to climate change would remain the same as existing conditions.

Proposed Action Alternative

Since the Proposed Action would have no construction element and would use existing facilities within the range of normal operations, it would have no effect on climate change.

Cumulative Effects

The Proposed Action would not result in adverse impacts to climate change and, therefore, would not contribute to cumulative impacts to climate change.

4.0 Consultation and Coordination

4.1 Fish and Wildlife Coordination Act (16 USC. 651 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources.

4.2 Endangered Species Act (16 USC. 1521 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Action agencies must consult with the U.S. Fish and Wildlife Service, which maintains current lists of species that have been designated as threatened or endangered, to determine the potential impacts a project may have on protected species.

Reclamation determined that the Proposed Action would not affect federally proposed or listed threatened and endangered species or their proposed or designated critical habitat. No further consultation is required under Section 7 of the Endangered Species Act.

4.3 Migratory Bird Treaty Act (16 USC § 703 ET SEQ.)

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior (Secretary) may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

4.4 National Historic Preservation Act (16 USC 470 et seq.)

Section 106 of the NHPA requires that Federal agencies take into consideration the effects of their undertakings on historic properties. The 36 CFR Part 800 regulations implement Section 106 of the NHPA and outline the procedures necessary for compliance with the NHPA. For the Proposed Action, there would be no changes to existing land use, no modifications to existing facilities, no ground disturbance, and no new construction as a result of the Proposed Action. Therefore, the Proposed Action has no potential to affect historic properties and is not an undertaking so Reclamation has no further obligations under Section 106, pursuant to 36 CFR 800.3(a)(1).

4.5 Public Review

The Draft EA and Finding of No Significant Impact (FONSI) were released for a 15-day public review period beginning August 24, 2010 and ending September 7, 2010. The documents were posted on Reclamation's website. A press release was issued on August 24, 2010 by the Bureau of Reclamation's Mid-Pacific Regional Public Affairs Office. Reclamation did not receive comments on the Draft EA.

5.0 List of Preparers and Reviewers

Brad Hubbard, Natural Resources Specialist, Mid-Pacific Region
Shelly Hatleberg, Natural Resources Specialist, Mid-Pacific Region
Laureen M. Perry, Regional Archaeologist, Mid-Pacific Region
Linda Colella, Water Acquisition Specialist, Mid-Pacific Region
Tim Rust, Fish and Wildlife Program Manager, Mid-Pacific Region

6.0 References

U.S. Department of the Interior, Bureau of Reclamation (USBR) 1998, *San Joaquin River Water Acquisition, 1998, Final EA/IS*.

U.S. Department of the Interior, Bureau of Reclamation (USBR) and San Joaquin River Exchange Contractors Water Authority (Exchange) 2004, *Final Environmental Impact Statement/Environmental Impact Report Water Transfer Program for the San Joaquin River Exchange Contractors Water Authority 2005-2014*. Pp.7-1

APPENDIX A



United States Department of the Interior
FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825



August 23, 2010

Document Number: 100823115509

Brad Hubbard
U.S. Bureau of Reclamation
2800 Cottage Way, E-2905
Sacramento, CA 95825

Subject: Species List for 2010 Incremental Level 4 Water - 8,000 AF Acquisition/Transfer of SJ Exchange Contractor Water

Dear: Mr. Hubbard

We are sending this official species list in response to your August 23, 2010 request for information about endangered and threatened species. The list covers the California counties and/or U.S. Geological Survey 7½ minute quad or quads you requested.

Our database was developed primarily to assist Federal agencies that are consulting with us. Therefore, our lists include all of the sensitive species that have been found in a certain area *and also ones that may be affected by projects in the area*. For example, a fish may be on the list for a quad if it lives somewhere downstream from that quad. Birds are included even if they only migrate through an area. In other words, we include all of the species we want people to consider when they do something that affects the environment.

Please read Important Information About Your Species List (below). It explains how we made the list and describes your responsibilities under the Endangered Species Act.

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 21, 2010.

Please contact us if your project may affect endangered or threatened species or if you have any questions about the attached list or your responsibilities under the Endangered Species Act. A list of Endangered Species Program contacts can be found at www.fws.gov/sacramento/es/branches.htm.

Endangered Species Division



U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the Counties and/or
U.S.G.S. 7 1/2 Minute Quads you requested**

Document Number: 100823115509

Database Last Updated: April 29, 2010

No quad species lists requested.

County Lists

Fresno County

Listed Species

Invertebrates

Branchinecta lynchi

Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Lepidurus packardii

Critical habitat, vernal pool tadpole shrimp (X)

vernal pool tadpole shrimp (E)

Fish

Oncorhynchus (=Salmo) clarki henshawi

Lahontan cutthroat trout (T)

Oncorhynchus (=Salmo) clarki seleniris

Paiute cutthroat trout (T)

Oncorhynchus mykiss

Central Valley steelhead (T) (NMFS)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Critical habitat, CA tiger salamander, central population (X)

Rana draytonii

California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila
blunt-nosed leopard lizard (E)

Thamnophis gigas
giant garter snake (T)

Birds

Gymnogyps californianus
California condor (E)

Mammals

Dipodomys ingens
giant kangaroo rat (E)

Dipodomys nitratoides exilis
Critical habitat, Fresno kangaroo rat (X)
Fresno kangaroo rat (E)

Dipodomys nitratoides nitratoides
Tipton kangaroo rat (E)

Ovis canadensis californiana
Sierra Nevada (=California) bighorn sheep (E)

Vulpes macrotis mutica
San Joaquin kit fox (E)

Plants

Calyptridium pulchellum
Mariposa pussy-paws (T)

Camissonia benitensis
San Benito evening-primrose (T)

Castilleja campestris ssp. succulenta
Critical habitat, succulent (=fleshy) owl's-clover (X)
succulent (=fleshy) owl's-clover (T)

Caulanthus californicus
California jewelflower (E)

Cordylanthus palmatus
palmate-bracted bird's-beak (E)

Monolopia congdonii (=Lembertia congdonii)
San Joaquin woolly-threads (E)

Orcuttia inaequalis
Critical habitat, San Joaquin Valley Orcutt grass (X)
San Joaquin Valley Orcutt grass (T)

Orcuttia pilosa
Critical habitat, hairy Orcutt grass (X)

Pseudobahia bahiifolia
Hartweg's golden sunburst (E)

Pseudobahia peirsonii
San Joaquin adobe sunburst (T)

Sidalcea keckii
Critical habitat, Keck's checker-mallow (X)
Keck's checker-mallow (=checkerbloom) (E)

Candidate Species

Amphibians

Bufo canorus
Yosemite toad (C)

Rana muscosa
mountain yellow-legged frog (C)

Mammals

Martes pennanti
fisher (C)

Kern County

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)

Branchinecta longiantenna
Critical habitat, longhorn fairy shrimp (X)
longhorn fairy shrimp (E)

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Euproserpinus euterpe

Kern primrose sphinx moth (T)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Critical habitat, CA tiger salamander, central population (X)

Rana draytonii

California red-legged frog (T)

Critical habitat, California red-legged frog (X)

Reptiles

Gambelia (=Crotaphytus) sila

blunt-nosed leopard lizard (E)

Thamnophis gigas

giant garter snake (T)

Birds

Charadrius alexandrinus nivosus

western snowy plover (T)

Empidonax traillii extimus

Critical habitat, southwestern willow flycatcher (X)

southwestern willow flycatcher (E)

Gymnogyps californianus

California condor (E)

Critical habitat, California condor (X)

Vireo bellii pusillus

Least Bell's vireo (E)

Mammals

Dipodomys ingens

giant kangaroo rat (E)

Dipodomys nitratooides nitratooides

Tipton kangaroo rat (E)

Ovis canadensis californiana

Sierra Nevada (=California) bighorn sheep (E)

Sorex ornatus relictus

Buena Vista Lake shrew (E)

Critical habitat, Buena Vista Lake shrew (X)

Vulpes macrotis mutica

San Joaquin kit fox (E)

Plants

Caulanthus californicus

California jewelflower (E)

Eremalche kernensis

Kern mallow (E)

Monolopia congdonii (=Lembertia congdonii)

San Joaquin woolly-threads (E)

Opuntia treleasei

Bakersfield cactus (E)

Pseudobahia peirsonii

San Joaquin adobe sunburst (T)

Sidalcea keckii

Critical habitat, Keck's checker-mallow (X)

Keck's checker-mallow (=checkerbloom) (E)

Proposed Species

Amphibians

Rana draytonii

Critical habitat, California red-legged frog (PX)

Candidate Species

Amphibians

Rana muscosa

mountain yellow-legged frog (C)

Birds

Coccyzus americanus occidentalis

Western yellow-billed cuckoo (C)

Mammals

Martes pennanti
fisher (C)

Merced County

Listed Species

Invertebrates

Branchinecta conservatio
Conservancy fairy shrimp (E)
Critical habitat, Conservancy fairy shrimp (X)

Branchinecta longiantenna
Critical habitat, longhorn fairy shrimp (X)
longhorn fairy shrimp (E)

Branchinecta lynchi
Critical habitat, vernal pool fairy shrimp (X)
vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
valley elderberry longhorn beetle (T)

Lepidurus packardii
Critical habitat, vernal pool tadpole shrimp (X)
vernal pool tadpole shrimp (E)

Fish

Oncorhynchus mykiss
Central Valley steelhead (T) (NMFS)
Critical habitat, Central Valley steelhead (X) (NMFS)

Amphibians

Ambystoma californiense
California tiger salamander, central population (T)
Critical habitat, CA tiger salamander, central population (X)

Rana draytonii
California red-legged frog (T)
Critical habitat, California red-legged frog (X)

Reptiles

Gambelia (=Crotaphytus) sila
blunt-nosed leopard lizard (E)

Thamnophis gigas

giant garter snake (T)

Mammals

Dipodomys ingens

giant kangaroo rat (E)

Dipodomys nitratoides exilis

Fresno kangaroo rat (E)

Vulpes macrotis mutica

San Joaquin kit fox (E)

Plants

Castilleja campestris ssp. succulenta

Critical habitat, succulent (=fleshy) owl's-clover (X)

succulent (=fleshy) owl's-clover (T)

Chamaesyce hooveri

Critical habitat, Hoover's spurge (X)

Hoover's spurge (T)

Neostapfia colusana

Colusa grass (T)

Critical habitat, Colusa grass (X)

Orcuttia inaequalis

Critical habitat, San Joaquin Valley Orcutt grass (X)

San Joaquin Valley Orcutt grass (T)

Orcuttia pilosa

Critical habitat, hairy Orcutt grass (X)

hairy Orcutt grass (E)

Tuctoria greenii

Critical habitat, Greene's tuctoria (=Orcutt grass) (X)

Greene's tuctoria (=Orcutt grass) (E)

Proposed Species

Amphibians

Rana draytonii

Critical habitat, California red-legged frog (PX)

Key:(E) *Endangered* - Listed as being in danger of extinction.

(T) *Threatened* - Listed as likely to become endangered within the foreseeable future.

(P) *Proposed* - Officially proposed in the Federal Register for listing as endangered or threatened.

(NMFS) Species under the Jurisdiction of the National Oceanic & Atmospheric Administration Fisheries Service. Consult with them directly about these species.

Critical Habitat - Area essential to the conservation of a species.

(PX) *Proposed Critical Habitat* - The species is already listed. Critical habitat is being proposed for it.

(C) *Candidate* - Candidate to become a proposed species.

(V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.

(X) *Critical Habitat* designated for this species

Important Information About Your Species List

How We Make Species Lists

We store information about endangered and threatened species lists by U.S. Geological Survey 7½ minute quads. The United States is divided into these quads, which are about the size of San Francisco.

The animals on your species list are ones that occur within, **or may be affected by** projects within, the quads covered by the list.

- Fish and other aquatic species appear on your list if they are in the same watershed as your quad or if water use in your quad might affect them.
- Amphibians will be on the list for a quad or county if pesticides applied in that area may be carried to their habitat by air currents.
- Birds are shown regardless of whether they are resident or migratory. Relevant birds on the county list should be considered regardless of whether they appear on a quad list.

Plants

Any plants on your list are ones that have actually been observed in the area covered by the list. Plants may exist in an area without ever having been detected there. You can find out what's in the surrounding quads through the California Native Plant Society's online [Inventory of Rare and Endangered Plants](#).

Surveying

Some of the species on your list may not be affected by your project. A trained biologist and/or botanist, familiar with the habitat requirements of the species on your list, should determine whether they or habitats suitable for them may be affected by your project. We recommend that your surveys include any proposed and candidate species on your list. See our [Protocol](#) and [Recovery Permits](#) pages.

For plant surveys, we recommend using the [Guidelines for Conducting and Reporting Botanical Inventories](#). The results of your surveys should be published in any environmental documents prepared for your project.

Your Responsibilities Under the Endangered Species Act

All animals identified as listed above are fully protected under the Endangered Species Act of 1973, as amended. Section 9 of the Act and its implementing regulations prohibit the take of a federally listed wildlife species. Take is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect" any such animal.

Take may include significant habitat modification or degradation where it actually kills or

injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or shelter (50 CFR §17.3).

Take incidental to an otherwise lawful activity may be authorized by one of two procedures:

- If a Federal agency is involved with the permitting, funding, or carrying out of a project that may result in take, then that agency must engage in a formal consultation with the Service.

During formal consultation, the Federal agency, the applicant and the Service work together to avoid or minimize the impact on listed species and their habitat. Such consultation would result in a biological opinion by the Service addressing the anticipated effect of the project on listed and proposed species. The opinion may authorize a limited level of incidental take.

- If no Federal agency is involved with the project, and federally listed species may be taken as part of the project, then you, the applicant, should apply for an incidental take permit. The Service may issue such a permit if you submit a satisfactory conservation plan for the species that would be affected by your project.

Should your survey determine that federally listed or proposed species occur in the area and are likely to be affected by the project, we recommend that you work with this office and the California Department of Fish and Game to develop a plan that minimizes the project's direct and indirect impacts to listed species and compensates for project-related loss of habitat. You should include the plan in any environmental documents you file.

Critical Habitat

When a species is listed as endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat. These areas may require special management considerations or protection. They provide needed space for growth and normal behavior; food, water, air, light, other nutritional or physiological requirements; cover or shelter; and sites for breeding, reproduction, rearing of offspring, germination or seed dispersal.

Although critical habitat may be designated on private or State lands, activities on these lands are not restricted unless there is Federal involvement in the activities or direct harm to listed wildlife.

If any species has proposed or designated critical habitat within a quad, there will be a separate line for this on the species list. Boundary descriptions of the critical habitat may be found in the Federal Register. The information is also reprinted in the Code of Federal Regulations (50 CFR 17.95). See our [Map Room](#) page.

Candidate Species

We recommend that you address impacts to candidate species. We put plants and animals on our candidate list when we have enough scientific information to eventually propose them for listing as threatened or endangered. By considering these species early in your planning process you may be able to avoid the problems that could develop if one of these candidates was listed before the end of your project.

Species of Concern

The Sacramento Fish & Wildlife Office no longer maintains a list of species of concern. However, various other agencies and organizations maintain lists of at-risk species. These lists provide essential information for land management planning and conservation efforts. [More info](#)

Wetlands

If your project will impact wetlands, riparian habitat, or other jurisdictional waters as defined by section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act, you will need to obtain a permit from the U.S. Army Corps of Engineers. Impacts to wetland habitats require site specific mitigation and monitoring. For questions regarding wetlands, please contact Mark Littlefield of this office at (916) 414-6580.

Updates

Our database is constantly updated as species are proposed, listed and delisted. If you address proposed and candidate species in your planning, this should not be a problem. However, we recommend that you get an updated list every 90 days. That would be November 21, 2010.